AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at page 25, line 9 as follows:

Optionally, the stream U and the stream C, which are concentrated in insoluble residues of extracted biomass and poor in PHA, can be joined and sent to a process of recovery of the remaining PHA dissolved in the PHA solvent, by means of a process of separation, for example by filtration, in which a filtrated stream (denominated F1) is generated containing PHA, water, ashes, color compounds, dissolved in the PHA solvent, and an end meal, herein denominated T, containing the residual insoluble solids of the extracted biomass. Optionally, the stream U, the stream C and a new quantity of PHA solvent in the liquid and in the vapor form can be mixed again in adequate agitation conditions, thus forming a new stream which will be submitted again to the previously described process. Thus, the resulting end effluent, concentrated in insoluble residues of extracted cellular biomass and poor in PHA, is finally submitted to a recovery process of the remaining PHA, dissolved in the PHA solvent, by a separation process, for example by filtration. The described extraction process comprises a number of steps such that it allows the recovery of quantities higher than about 95% (weight/weight) of the PHA originally contained in the biomass, with retention times shorter than about 10-20 minutes, in order to obtain a PHA presenting a molecular weight at minimum of about 850,000 Da from a biomass slurry containing PHA with a molecular weight at minimum of about ~~850,000~~1,000,000 Da.

Please amend the paragraph beginning at page 26, line 16 as follows:

The stream P and the stream FI described above, freed of insoluble residues of cellular biomass and containing PHA, water, ashes and some color compounds dissolved in PHA solvent, upon being rapidly cooled to temperatures around 45°C or lower, cause PHA precipitation, forming a suspension whose molecular weight is at minimum of about ~~750,000~~850,000 Da, starting from a biomass slurry containing PHA with a molecular weight at minimum of about 1,000,000 Da. This 25 precipitation can be further aided by the introduction of a crystallization germ.

Please amend the paragraph beginning at page 27, line 15 as follows:

The suspension previously concentrated with PHA, with a PHA concentration ranging from 3.5%-~~810%~~8% (weight/weight) (and defined by the stream S in figure 1, is then submitted to a concentration step by means of evaporation, at atmospheric pressure, and preferentially in multiple vacuum effects, in which are simultaneously fed the PHA suspension and a weak water stream AF, recovered in the process and containing PHA solvent dissolved therein. This weak water is fed in the evaporators in a proportion such as to allow obtaining a suspension basically containing PHA, PHA solvent and water, forming agglomerates of PHA granules presenting high porosity, in a brittle agglomeration and which can be easily sheared. This suspension is then simultaneously with the evaporation submitted to a comminution process in an mechanical shearing element, for example a circulation centrifugal pump, in which the agglomerates of PHA granules, with high porosity and brittle, are rapidly and adequately ruptured, in order to obtain a suspension of much finer PHA particles, which can be abundantly washed during the evaporation process of the PHA solvent. This suspension, to which is added a weak water stream (AF1), is then submitted to evaporation of the end residual solvent (stripping), until it is completely extracted from the remaining liquid (mother liquor), upon injecting live steam simultaneously with the re-circulation of the suspension obtained in the prior step. By repeating the shearing process during the evaporation, it is possible to obtain a controlled comminution of the PHA until it becomes a powder in suspension in the remaining liquid free of solvent. Thus, at the end of the process, a suspension of PHA particles is obtained, finely dispersed in the remaining liquid (mother liquor), which in turn contains dissolved therein the impurities removed from the PHA. This suspension is then rapidly cooled to about 45°C or less and submitted to a process of separating the solids from the liquids, for example by filtration, and rinsing the filtrated cake with fresh water, containing the PHA particles.